

Utah WQX Training

May 30

2012

Division Training for Utah DWQ's new water quality database

DRAFT
Document

1.0 Setting Your User Preferences

Use the User Preferences Page to customize the way you want the system to behave.

Select the “Preferences” link on the left sidebar navigation panel to open the Preferences Page.

The screenshot shows the 'Preferences' page of the 'Ambient Water Quality Monitoring System'. At the top, a breadcrumb trail reads 'You are here: Home >> Preferences'. The page is divided into several sections with bold headers: 'Organization', 'Import Configuration Page', 'Import File Page', 'Max. Length Resolution Page', 'Domain Value Resolution Page', 'List Pages', and 'Graphing and Reporting Criteria Pages'. Under 'Organization', the 'Default:' dropdown is set to 'GOLDMARK'. Under 'Import Configuration Page', the 'Column Delimiter:' dropdown is set to 'Comma'. Under 'Import File Page', the checkbox 'Ignore First Row of Import Files' is checked. Under 'Max. Length Resolution Page', the 'Resolution:' dropdown is set to 'Modify value manually'. Under 'Domain Value Resolution Page', the 'Resolution:' dropdown is also set to 'Modify value manually'. Under 'List Pages', the 'Number of Results Per Page:' dropdown is set to '500' and the 'Monitoring Location Sort Order:' dropdown is set to 'ID'. The 'Graphing and Reporting Criteria Pages' section includes a checkbox 'Include results with the following detection conditions:' which is checked, with a sub-option 'Not Detected or Present Below QL:' and a text input 'Use 100 x MDL or LQL as the value'. Below this, it says 'When calculating geometric mean in the Means Bar Chart:' with a text input 'Substitute 1 for a value of zero'. A date range is specified as 'Date (between): 04-22-2009 and 04-30-2009 (MM-DD-YYYY)'. For correlating X and Y values, three radio buttons are shown: 'Activity Date and Time' (selected), 'Activity Date', and 'Activity ID'. Finally, for displaying values in graphs, three radio buttons are shown: 'Don't show values' (selected), 'Show values as labels', and 'Show values as tooltips on mouseover'. At the bottom, there are 'Return', 'Save', and 'Cancel' buttons.

Ambient Water Quality Monitoring System
You are here: [Home](#) >> Preferences

Preferences

Organization
Default: GOLDMARK

Import Configuration Page
Column Delimiter: Comma

Import File Page
☒ Ignore First Row of Import Files

Max. Length Resolution Page
Resolution: Modify value manually

Domain Value Resolution Page
Resolution: Modify value manually

List Pages
Number of Results Per Page: 500
Monitoring Location Sort Order: ID

Graphing and Reporting Criteria Pages
Include results with the following detection conditions:
☒ Not Detected or Present Below QL:
Use 100 x MDL or LQL as the value
When calculating geometric mean in the Means Bar Chart:
Substitute 1 for a value of zero
Date (between): 04-22-2009 and 04-30-2009 (MM-DD-YYYY)
Correlate the X and Y values in the bi-variate scatter plot and export to each other based on:
☒ Activity Date and Time
☐ Activity Date
☐ Activity ID
Display values in graphs as:
☒ Don't show values
☐ Show values as labels
☐ Show values as tooltips on mouseover
Return Save Cancel

The preferences currently available are:

Import Configuration Page: Column Delimiter. This sets the default value for the Column Delimiter field on a new import configuration. It can be overridden each time you create an import configuration.

Import File Page: Ignore First Row of Import Files. This sets the default value for this check box on the Import File Page and can be overridden each time you import a file

Max Length Resolution Page: Resolution. This sets the default value for this field on the Max Length Resolution Page. See the Max Length Resolution Page for more information.

Domain Value Resolution Page: Resolution. This sets the default value for this field on the Domain Value Resolution Page. See the Domain Value Resolution Page for more information.

When you are finished editing this page, click “Save” at the bottom of the page to save your changes. Click “Return” to go back to the Home page.

2.0 Changing Your User Information

The User Detail Page allows you to change your contact information (Name, Address, E-mail, etc.).

This page also shows you the organizations you have been given access to. Note that only a System Administrator can change organization rights.

Select the “User Information” link on the left sidebar navigation panel to open the User Detail Page.

Ambient Water Quality Monitoring System (Test)
You are here: [Home](#) >> [Users](#) >> User Detail

User Detail

Status: Enabled

Login Name:* cseese

Password:* ••••••

Full Name:* Calah Seese

Affiliation: Division of Water Quality

Address: 195 North 1950 West

City: Salt Lake City

State: UT

Zip: 84116

Country: USA

Phone #:

Email: cseese@utah.gov

Organization Rights:

| Organization | Add | Update | Delete | Admin |
|--------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| UTAHDWQ_WQX | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

[Return](#) [Save](#) [Cancel](#)

When you are finished editing this page, click “Save” at the bottom of the page to save your changes. Click “Return” to go back to the Home page.

3.0 Managing Existing Monitoring Locations

In the database, a pair of companion pages exists for each of the main types of data in AWQMS

A List page for searching and identifying data of interest

- Criteria at the top of each page enables the user to filter the list of data.
- An “Add New” button allows you to create new records within the selected type of data.

A Detail page for viewing and editing the specific record selected on the List page.

- Required fields are indicated by an asterisk to the right of the label.

3.1 Monitoring Location List page

This page is used to view a list of Monitoring Locations that have been entered or imported into the system and will allow you to navigate or “drill down” to the details for a specific existing Monitoring Location record or to navigate to a blank form for entering a new record for a Monitoring Location that has not yet been captured in the system.

Select the “Monitoring Locations” link under the “Management” header on the left sidebar navigation panel to open the Monitoring Location List page.

The screenshot shows the 'Monitoring Locations' page of the 'Ambient Water Quality Monitoring System (Test)'. The page has a blue header with the system name and version 'ver. 1.20.12.06'. A left sidebar contains navigation links: Home, Input, Import Configurations, Import a File, Datasets, Rapid Data Entry, Management, Projects, Monitoring Locations (selected), Bio/Habitat Indices, and Security Groups. The main content area has a title 'Monitoring Locations' and a red instruction: 'Please enter search parameters and click the search button to show Monitoring Locations.' Below this are search fields: 'Organization ID:' with a dropdown, 'Monitoring Location ID:' with a text input, 'Name:' with a text input, 'State (for HUC):' with a dropdown, and 'HUC 8:' with a text input. There are 'Search' and 'Clear' buttons on the right, and 'Return' and 'Add New' buttons at the bottom left. At the bottom of the page, there are links for 'AWQMS User Guide', 'AWQMS Forums', and 'STORET - WQX'.

You will be able to filter the list, searching for Monitoring Locations, using the Organization ID, Monitoring Location ID, Name fields, and/or a HUC 8 selection box at the top of the screen and subsequently selecting the “Search” button on the far right-hand side of the filter fields. No field is required; you may search for everything by clearing all filters and selecting “Search”. Otherwise, you may fill in as many fields as you need.

The standard Organization ID used by Utah to store all the existing Monitoring Locations and results is “UTAHDWQ_WQX”. You may select this first from the Organization ID drop down list if you have rights to more than one Organization. Otherwise, you only have access to the “master” organization, UTAHDWQ_WQX and you do not necessarily need to select this from the list to search for Monitoring Locations.

To filter by HUC 8, first select “Utah” from the State (for HUC) drop down list. The HUC 8 Box below the drop down list will then populate with all the HUC 8 numbers and names that exist for Utah. Scroll down the list and select the HUC 8 and click “Search” to pull up all Monitoring

Locations assigned to that HUC 8. Hold the “Control” key down on your keyboard to select more than one HUC 8.

Entering the % sign in any search field indicates a “Wild card” search. For example, “499%” in the Monitoring Location ID field will search for a Location ID that begins in 499. Or, “%499%” will filter based on any Location ID that has 499 somewhere in the ID. Finally, “%499” will query for any Location ID that ends with 499. It may be used in the same way with the Name field.

QC Monitoring Locations that were entered into BlueFish without latitude and longitude information are currently stored under and “Unknown” category. If you wish to view this placeholder, search “Unknown” in the Monitoring Location ID field.

Selecting a hyperlink in the Monitoring Location ID column will take you to the Monitoring Location Details Page for the specific Monitoring Location selected. From this page, click “Return” button at the bottom of the page to return to the Monitoring Location List page with you query and result list still displayed. [Refer to Section 3.2 to learn more about the Monitoring Location Detail page.](#)

Selecting a hyperlinked column header will sort the returned Monitoring Location results by that column first from small to large (or A to Z). If you click the same column header twice, the result list will sort by that column from large to small (or Z to A).

You may use the navigation buttons on the bottom right-hand side of the result list to display additional results, or navigate between result pages. These buttons will turn on or off based on what type of navigation is allowed. For example, on the first page of results you will not be allowed to select the “Prev”, or Previous Page, button as there is no previous page.

The Row count next to the navigation buttons provides a count of the total number of results returned based on your query.

The “Export to Excel” button at the bottom of the page enables you to download all of the results based on your query. Select “Export to Excel” and a File Download window will pop up. Select “Save” in this pop up window. The default Monitoring Location List page export name is “MonLocExport.csv”. A Save As window will open prompting you to navigate to where you want to save the file, and allowing you to edit the file name. Select “Save” once you are ready. A Download complete window will open prompting you to open the file or finish the export process. Click “Open” to open the file with Excel. The Export file will include the following information:

- Organization ID
- Monitoring Location UID
- Monitoring Location ID
- Name
- Description
- Monitoring Location Type
- County
- State
- Country
- HUC 8
- HUC 12
- Date Established
- Tribal Land?
- Tribal Land Name
- Township/Range/Section
- Latitude
- Longitude
- Horizontal Accuracy
- Horizontal Accuracy UoM
- Horizontal Reference Datum
- Horizontal Collection Method
- Source Map Scale
- Vertical Measure
- Vertical Measure UoM
- Vertical Reference Datum
- Vertical Collection Method
- Comments (ie. Ben. Uses)

You must select “Clear” to reset all the filter fields to blank when you wish to start a new query.

3.2 Monitoring Location Detail Page

This page is used to view and/or edit a specific Monitoring Location, add/delete Attached Binary Objects to/from a specific Monitoring Location, capture information about a new Monitoring location, or delete an existing Monitoring Location.



All of the fields related to Monitoring Locations are represented on the Monitoring Location Detail page. Required fields are indicated by an Asterisk (*).

The values in the State drop-down list will be based on the selected country.

The values in the County drop-down list will be based on the selected state.

The application computes and displays the degrees, minutes, and seconds (DMS) of latitude longitude from the decimal degrees and vice-versa. So you only need to populate one format or the other.

The Map Latitude/Longitude link allows you to view a topographical satellite map of the longitude/latitude coordinates for the selected Monitoring Location.

Alternate IDs: [Add](#)

| ID | Context |
|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> |

[Remove](#)

Attached Objects: [Add](#)

[Winter.jpg](#) [Remove](#)

Created By: 01-01-0001 12:00:00 AM
Last Modified By: 04-07-2009 04:29:32 PM

[Return](#) [Save](#) [Cancel](#) [Delete](#)

[User Guide \(WQX Web\)](#) | [STORET - WQX](#) | [STORET User Assistance](#)

The page has a sub-section for maintaining a list of alternate identifiers for the monitoring location. Utah does not have alternate identifiers in the database at this time.

Attached Objects: [Add](#)

[Winter.jpg](#) [Remove](#)

[Browse...](#) [Upload](#)

Created By: 01-01-0001 12:00:00 AM
Last Modified By: Andy Van den Akker 04-16-2009 04:40:48 PM

[Return](#) [Save](#) [Cancel](#) [Delete](#)

“Attached Objects” allows you to view a stored attachment. Attachments could include photos of the sampling location or a PDF containing contact and access information.

Click “Return” at the bottom of the page to navigate back to the Monitoring Location List page. If you chose to click the “Monitoring Locations” link on the left sidebar navigation panel from the Monitoring Location Detail page, you will be navigated back to the Monitoring Location List page as well.

4.0 Analyzing Data Online

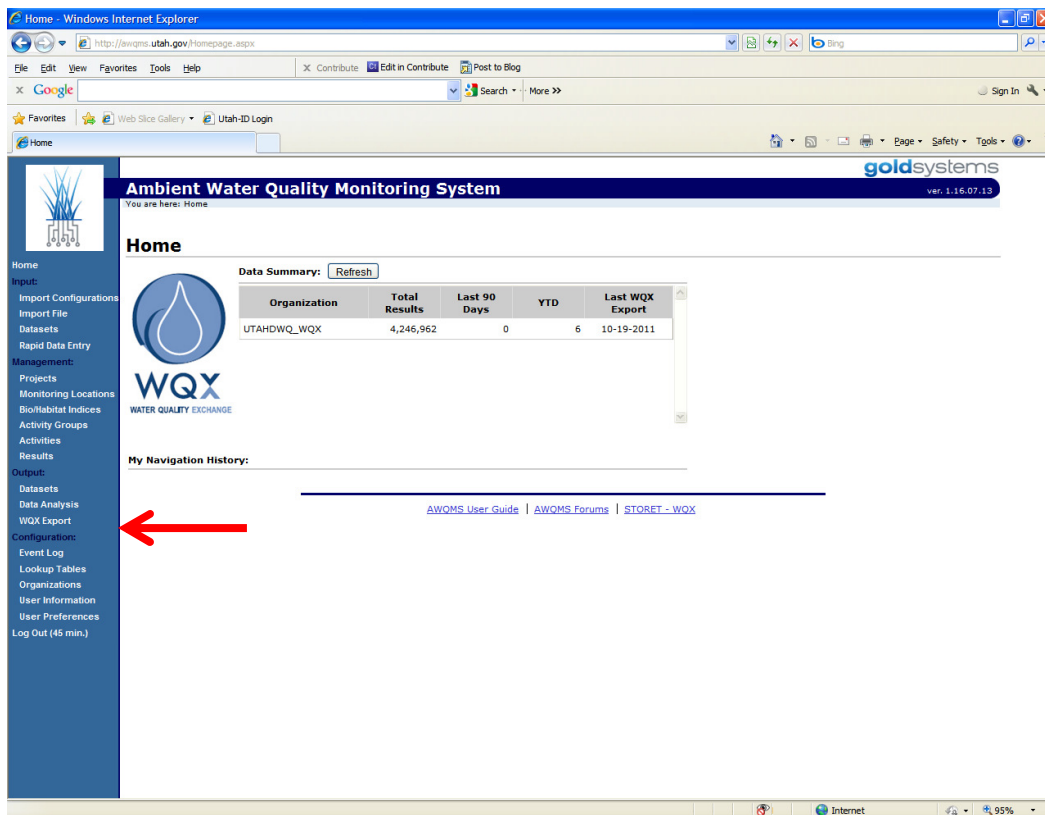
The database has several basic data analysis, summary and graphing tools.

5.0 Analyzing Data by Exporting Data for External Analysis

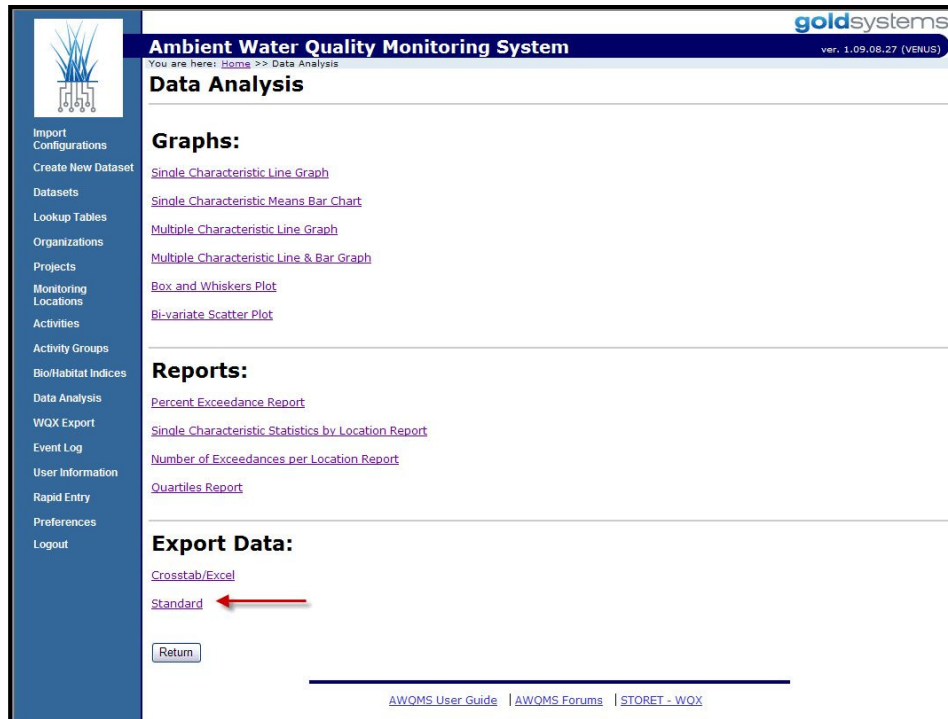
You do not need to view a report or graph in order to export data for a given set of search criteria. You can export data as an Excel readable file using the following steps:

5.1 Data Analysis

Select Data Analysis in the navigation menu. The *Data Analysis* screen displays.

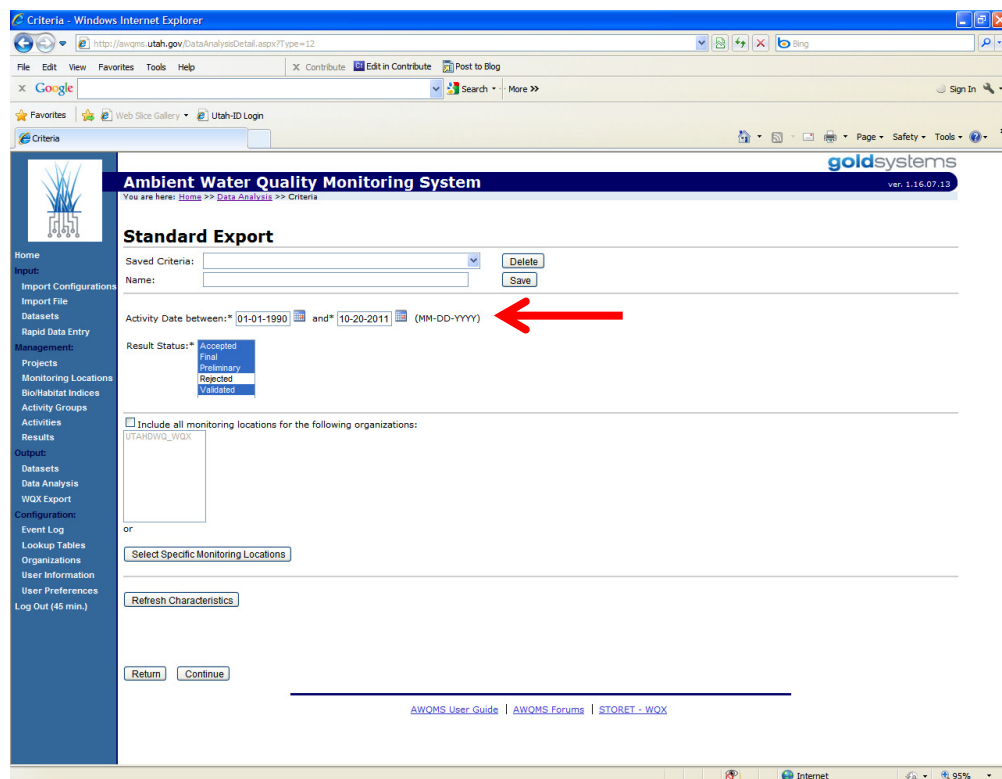


Select **Standard**. The *Export Data Criteria* screen displays.



Enter search criteria and specify graph options.

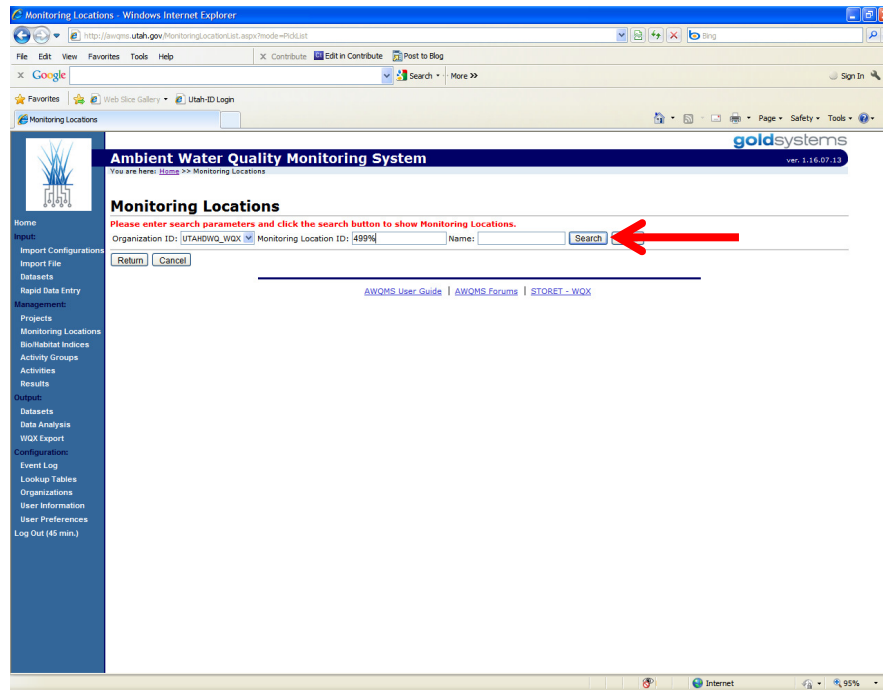
a) Select a date range. (MM-DD-YYYY)



b) Select the Result Status for which you want the data to be reported.

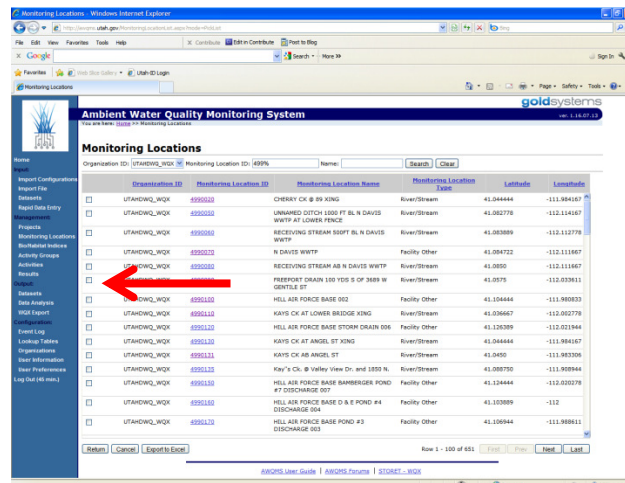
c) Select the Monitoring Locations you wish to query.

- Selecting the Check Box and clicking on UTAHDWQ_WQX will select ALL locations in the database.
- Or, click on “Select Specific Monitoring Locations” to select a subset of sites.

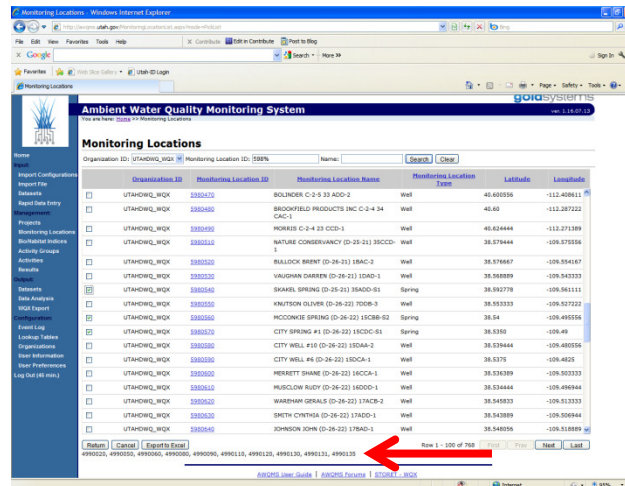


Notes: Monitoring Location ID refers to the STORET Number.
Entering a % before or after partial names or ID numbers serves as a wild card.

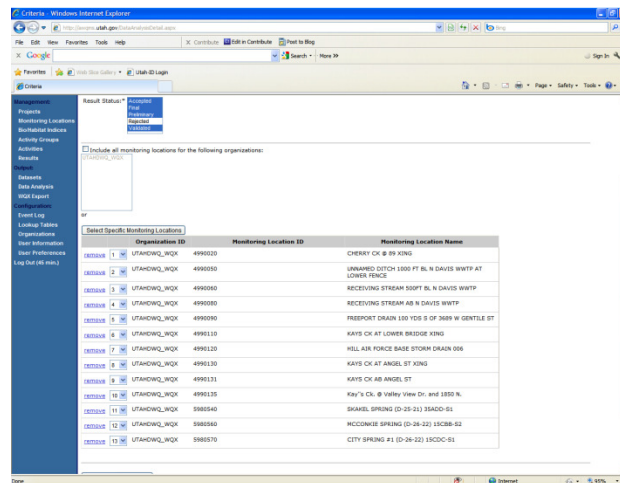
- Enter a search criteria for the “UTAHDWQ_WQX” Organization
- Click “Search”
- Select the sites you want by clicking the checked box.



- You can now search by different criteria and the system will store the sites you have already selected below the “Return, Cancel and Export to Excel” buttons.



v. When you are done, click “Return”



d) Click “Refresh Characteristics

- The characteristics list will be filtered to only show the characteristics for which there are actually results for the selected locations in the given date range and that will have one of the selected statuses.
- Each characteristic, fraction, and unit of measure combination for which there is actual data is displayed as a unique item in the list.

e) Select at least one characteristic, fraction, and unit of measure combination. Note that you can select more than one combination.

f) Select one or more activity types.

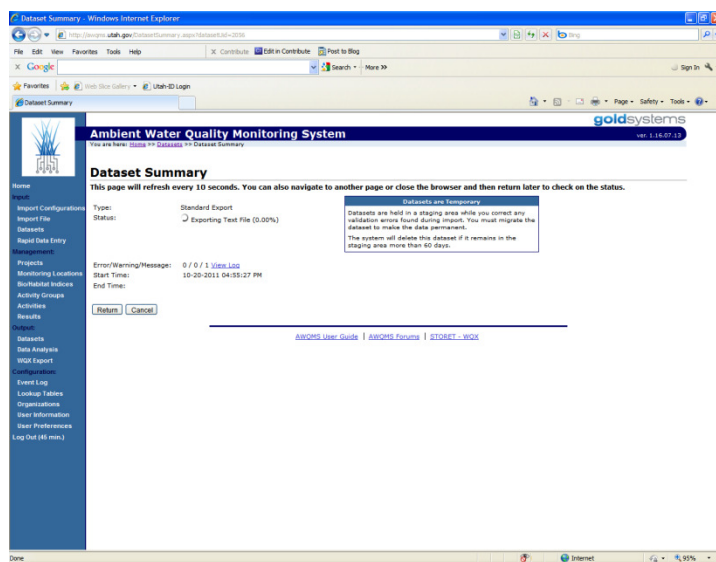


g) If you would like results with a detection condition of either “Non-Detect” or “Present Below Quantification Limit” to be included in the graph, this is set in User Preferences.

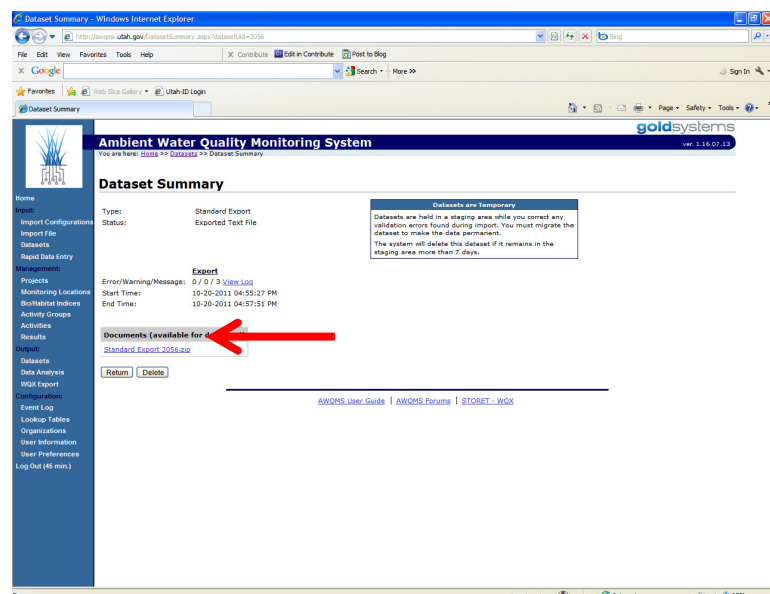
- If a result is a non-detect the system will report a Result Value of a Method Detection Limit multiplied by the supplied factor if specified in User Preferences.
- If a result is a a non-detect the system will report a Result Value of nothing, if specified in User Preferences.

Select **Continue** .

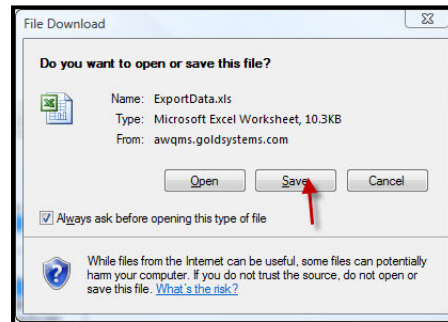
Your query will now run and an export file will be built with your results. You can run multiple queries at once – they will queue and export in the order they were received by the database. **Note:** You can navigate away from this window, or even log out while the query is processing. To get back to the query, go “Home” on the left side bar navigation, and find your query under “My datasets”.



Once ready for download, a hot-linked file will appear. Click on it.



A dialog will open asking you if you wish to unzip the file and open the file directly in Excel or save it to your computer. In this example, we will unzip the file, save the file and then open it in Excel. Select **Save**.



Your computer will then allow you to decide where to save the file and what name to use. In this example, we will save it to the desktop and keep the default name.

Select the **OK** button and the save window will close.

Now navigate to the desktop

Double-click the file to open it in Excel.

The file opens in Excel.

The screenshot displays a Microsoft Excel spreadsheet with the following structure:

- Column A:** Contains dates from 12/21/2016 to 12/29/2016.
- Columns B through S:** Each column has a header representing a category (e.g., B: Activity, C: Activity, D: Activity, etc.) and contains numerical data for each date.
- Table Structure:** The data is organized into a table with headers for each category (B through S) and a column for dates (A).
- Formulas:** The spreadsheet uses formulas to calculate the data, as indicated by the green triangle icon in the top right corner.
- Formulas Bar:** The formula bar at the top shows the active cell's content, which is a date: 12/29/2016.
- Worksheet Name:** The worksheet is named "12/29/2016".
- File Name:** The file is named "12/29/2016.xlsx".
- File Path:** The file is located at "C:\Users\user\Documents\12/29/2016.xlsx".
- File Size:** The file size is 10 KB.
- File Type:** The file type is "Microsoft Excel 97-2003 Read-Only".
- File Encoding:** The file encoding is "UTF-8".
- File Version:** The file version is "1.0.0.0".
- File Author:** The file author is "user".
- File Created:** The file was created on 12/29/2016.
- File Modified:** The file was modified on 12/29/2016.
- File Deleted:** The file was deleted on 12/29/2016.
- File Moved:** The file was moved on 12/29/2016.
- File Renamed:** The file was renamed on 12/29/2016.
- File Copied:** The file was copied on 12/29/2016.
- File Shared:** The file was shared on 12/29/2016.
- File Hidden:** The file was hidden on 12/29/2016.
- File Unhidden:** The file was unhidden on 12/29/2016.
- File Deleted:** The file was deleted on 12/29/2016.
- File Moved:** The file was moved on 12/29/2016.
- File Renamed:** The file was renamed on 12/29/2016.
- File Copied:** The file was copied on 12/29/2016.
- File Shared:** The file was shared on 12/29/2016.
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